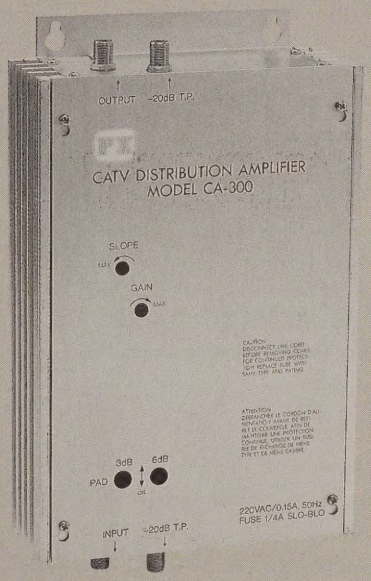
Priority in Service Quality

CABLE TV SYSTEMS

Model: CA-300
CATV/SMATV DISTRIBUTION AMPLIFIER



Module IC Design
High Power
Full Functions

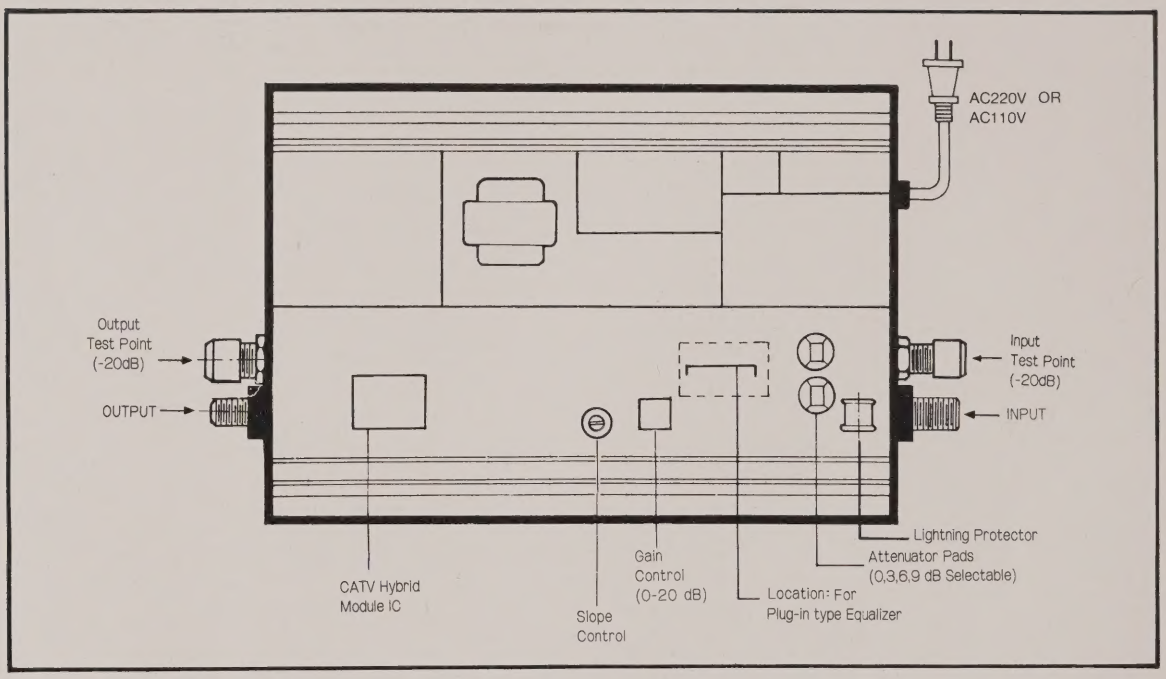
CA-300

FEATURES:

1. The special design for CATV/SMATV Distribution system and for multi-dwelling units such as apartments, hotels, motels, office buildings, hospitals and schools.
2. CATV hybrid integrated circuit design for 28dB gain amplification and high power output distribution.
3. Various gain control to meet the required output level:
   a. Plug-in type attenuator pads (0, 3, 6, 9dB selectable).
   b. Tuning type gain control (0-20dB adjustable).
4. Various slope control to meet the feature of cable attenuation:
   a. Plug-in type equalizer (0, 12, 22.5dB option; when ordering, please specify and order separately.)
   b. Tuning type slope control (0-12dB adjustable).
5. Equipped input/output test point (-20dB).
6. Built-in lightning protector.
7. Compact aluminum alloy housing, providing efficient thermal dissipation.

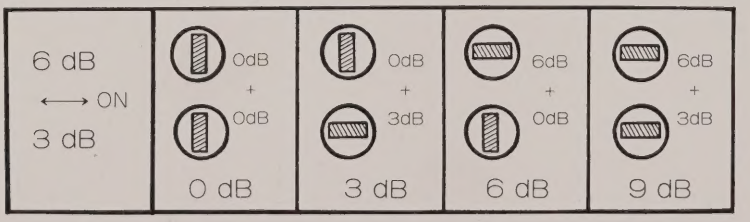
INSTALLATION

CA-300 Functional Diagram



1. After input & output signals are connected, plug AC power cord into the AC outlet.
2. Open the cover for signal level adjustment.
   a. Plug the equalizer into amplifier. if necessary.
   b. Adjust the gain control for making all the channels output signal level to be 106dBμv (+46dBmv), must use the attenuator pads firstly, then use the gain control (0 −20dB) for final revision.

   Change the direction of attenuator pads as the following illustration for 0dB, 3dB, 6dB, 9dB attenuated value.



   c. Adjust the slope control for making all the channels output signal reach to a certain level.
   d. Repeat b.c. adjusting steps if necessary.

3. The methods of Equalizer Selecting:
   a. Calculate the cable loss for 300 MHz (for 300 MHz system, only calculate the signal loss of coaxial cable, but not the other distributions).
   b. Select the identical value Equalizer based on the (a)'s calculated value. If you have no identical ones. select the lower value Equalizer and do slope control adjustement
   c. There are options for 0, 12, 22.5dB Equalizers. (Equalizer should be ordered separately and it's not equiped with CA-300 Amplifier).
4. The Input signal level of CA-300 Amplifier has to be higher than 60dBμv (0dBmv).
5. The Input & Output of CA-300 Amplifier are equiped with test point (–20dB) for measuring the signal level.
6. When both the Input & Output terminals of CA-300 Amplifier connect with the cable connectors, the use of waterproof's caps and tapes are needed.

CA-300 CATV/SMATV DISTRIBUTION AMPLIFIER

SPECIFICATIONS:

Items	Specifications
Frequency Range	45-300 MHz (CA-300B 45-450MHz) (CA-300C 45-550MHz)
Frequency Response	±0.5 dB
MAX. Gain	28 dB (min)
Gain Control	0-20dB adjustable
Attenuator Pads	0, 3, 6, 9dB selectable
Slope Control	0-8dB adjustable
Equalizer	0, 12, 22.5dB option (when ordering, please specify and order separately)
MAX. Output Level	110dB (for NTSC 36 channels input) (for PAL B 28 channels input)
Noise Figure	7～ 9dB
Input/Output Return Loss	16dB nom.
Cross Modulation	-57dB: 48.5dBmV
Second Order	-70dB: 44 dBmV
Composite Triple Beat	-57dB: 48 dBmV
Hum Modulation	-66 dB
Lightning Conductor	500A (10/1000μS PULSE, 1.5x40μS)
Input/Output Test Point	-20 ± 1dB
Input/Output Impedance	75 ohm
Power Requirement	AC220V 50Hz 110mA or AC110V 60Hz 100mA
Temperature Range	±40° C
Dimensions	275(W)x162(D)x63(H)mm
Weight	2.4kgs.